

PETITION  
TO  
TAU BETA PI  
FROM  
TAU BETA GAMMA

May 16, 1973

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TO  
TAU BETA PI  
FROM  
TAU BETA GAMMA

May 16, 1973

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## History of Tau Beta Gamma at Kansas State University

Tau Beta Gamma was formed as a result of an organizational meeting held on September 28, 1970. It was formed and operated along the same lines as Tau Beta Pi in order that a local chapter of that organization could be formed. Although a chapter of Sigma Tau has existed for a number of years at Kansas State, several engineering students at this time were dissatisfied with the traditional type of honor society. Therefore, Tau Beta Gamma was formed to serve more as a service organization. The members also hoped that it would become part of a larger national organization at a later date.

Dr. Frank A. Tillman was instrumental in the formation of Tau Beta Gamma, and he still serves as the advisor. One of the original projects of the society was to work with the Boy Scouts of American and their engineering merit badge program. The formation of an advisory council composed of engineering faculty and non-faculty practicing engineers is also being considered.



KANSAS STATE UNIVERSITY

Department of Industrial Engineering  
Engineering Shops Building  
Manhattan, Kansas 66506  
Phone: 913 532-5606

December 15, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee

Gentlemen:

Enclosed is the petition of Tau Beta Gamma, the engineering honorary society of Kansas State University, to establish a local chapter of Tau Beta Pi. It is my pleasure to convey this petition to you for your consideration.

From its beginning Tau Beta Gamma has followed the standards set by Tau Beta Pi for the election of members and its operation. The performance of the alumni of the society and the university in industry and graduate school attests to the quality of their education. The association of Tau Beta Pi would offer the students national recognition for their achievement.

It is my feeling that the students at Kansas State University are deserving of the distinction of election to Tau Beta Pi, and I wholeheartedly support this petition.

Sincerely,

A handwritten signature in cursive script, reading 'Frank A. Tillman'.

Frank A. Tillman, Ph.D.  
Faculty Advisor  
Tau Beta Gamma



KANSAS STATE UNIVERSITY

President's Office  
Anderson Hall  
Manhattan, Kansas 66506

February 26, 1973

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37900

Gentlemen:

I am pleased to support the petition of the local chapter of Tau Beta Gamma, an engineering honor society at Kansas State University, to become a chapter of Tau Beta Pi. I sincerely hope that you will give this petition favorable consideration.

I'm continually impressed by the high level of professional and intellectual achievements of faculty, students and graduates of the K-State College of Engineering. Our Engineering student body, year after year, has displayed a remarkable esprit de corps. This has been reflected in the annual Engineers Open House which attracts some five or six thousand Kansans who are afforded an opportunity to observe at first hand achievements of the engineering profession. It is reflected as well in many student enterprises designed to develop and increase support for the College of Engineering.

Should Tau Beta Pi act favorably on this petition, I'm sure that this recognition would do much to stimulate continued progress on the part of our College of Engineering.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'James A. McCain'.

James A. McCain  
President

ce



KANSAS STATE UNIVERSITY

Office of the Dean  
College of Engineering  
Seaton Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5590

February 26, 1973

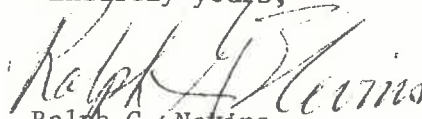
Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville TN 37900

Gentlemen:

I wish to take this opportunity to support the petition of our local Engineering Honor Society, Tau Beta Gamma, to become a chapter of Tau Beta Pi, and hope your group will give favorable consideration to their request. This action is the result of several years of discussion and preparation by students, faculty and alumni. It has been our desire for several years to achieve this recognition for our students whom we believe to be some of the top engineering students in the United States, and for our graduates who have achieved recognition in many fields throughout the world.

If the petition is granted, I can assure you, I will do everything to assist the chapter in any way I can and to encourage students and faculty to support the program. As indicated above, I feel Kansas State University engineering students deserve to have access to membership in this fine organization.

Sincerely yours,

  
Ralph G. Nevins  
Dean of Engineering

RGN/jlg

THE TAU BETA PI ASSOCIATION  
INCORPORATED

FOUNDED 1885



INCORPORATED 1947

NATIONAL ENGINEERING HONOR SOCIETY  
MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES

KANSAS BETA CHAPTER  
WICHITA STATE UNIVERSITY  
WICHITA, KANSAS 67208

March 22, 1973

Mr. John H. Meiners  
President, Tau Beta Gamma  
Kansas State University  
Manhattan, Kansas 66506

Dear Mr. Meiners:

The inspection team from Kansas Beta, Wichita State University wishes to convey our sincere thanks for a most interesting and informative day at Kansas State University.

Your university is without question worthy of a Tau Beta Pi chapter. I believe there does exist among the faculty and the student engineering body the initiative to develop a fine Tau Beta Pi chapter.

The inspection tour of your facilities, the person to person contact with your Tau Beta Gamma members and supporting faculty, and the following question and answer period, all contributed to our enthusiastic support of your petition for a Tau Beta Pi chapter at Kansas State.

Speaking for Kansas Beta congratulations on the unanimous recommendation of the inspection committee. Good luck at the 1973 Convention and the very best wishes for the future from the Kansas Beta chapter.

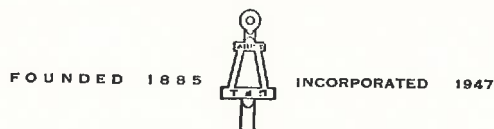
Sincerely yours,

A handwritten signature in dark ink, reading "Dennis D. Hoover". The signature is written in a cursive style with a large, stylized "D" and "H".

Dennis D. Hoover  
President, Kansas Beta



THE TAU BETA PI ASSOCIATION  
INCORPORATED



NATIONAL ENGINEERING HONOR SOCIETY  
MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES

KANSAS ALPHA CHAPTER  
THE UNIVERSITY OF KANSAS  
LAWRENCE, KANSAS 66044

March 26, 1973

Mr. John H. Meiners  
President, Tau Beta Gamma  
c/o Dr. F. A. Tillman  
Dept. of Industrial Engineering  
Kansas State University  
Manhattan, Kansas 66506

Dear John,

As representatives of Kansas Alpha on the inspection tour of your campus, we gladly express our enthusiastic support of Tau Beta Gamma's petition to establish a chapter of Tau Beta Pi at Kansas State University. We believe that you have many very fine engineering programs at K-State and a competent faculty to complement them. The close student-faculty relationship at your school is highly commendable and the interest shown by both groups will no doubt be a real asset in the continued successful operation of your chapter.

We strongly encourage the 1973 Convention to approve Tau Beta Gamma's petition and wish you the best of luck in Florida this fall.

Sincerely,

*David W. Walter*

David W. Walter  
President, Kansas Alpha

*George W. Forman*  
Prof. George W. Forman  
Advisor, Kansas Alpha

*David M. Suptic*  
David M. Suptic  
Member, Kansas Alpha

THE TAU BETA PI ASSOCIATION  
INCORPORATED

FOUNDED 1885



INCORPORATED 1947

NATIONAL ENGINEERING HONOR SOCIETY  
MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES

MISSOURI ALPHA CHAPTER  
UNIVERSITY OF MISSOURI, COLUMBIA  
COLUMBIA, MISSOURI 65201

March 24, 1970

Mr. Randy Ellis  
1224 Fremont  
Manhattan, Kansas 66502

Dear Mr. Ellis:

Through the Office of the Dean of Engineering here at the University of Missouri-Columbia, I have learned that the engineering students at Kansas State are interested in setting up a Tau Beta Pi Chapter there. As President of the Mo. Alpha Chapter I proposed, to our active membership, that we support KSU in your effort to establish a Chapter. The proposal was unanimously approved and the members seemed very anxious to offer any assistance they can.

If you are sincere in your desire for a Chapter please write me at the address below and let me know to what extent you are informed of the procedure for petitioning for a charter. I think this would be better than my trying to guess what you know and what you don't know and trying to fill in the voids. Immediately upon hearing from you I will get to work and find out all I can for you. One thing you might want to know now is that the petition should be in the hands of the National Executive Council by January 1, 1971 if action is to be taken on it at the national convention in the fall of 1971. Therefore, we should get to work as soon as possible.

If in some instances you have a question which you can't wait for correspondence on, you might ask those members of the faculty there who are members of Tau Beta Pi to help. I'm sure they will be more than willing to assist you in any way they can.

Again, we at Mo. A are very anxious to assist in establishing a Tau Beta Pi Chapter at Kansas State, and we look forward to hearing from you.

Sincerely yours,

A handwritten signature in cursive script, reading "Ted M. Brandt". The signature is written in dark ink and is positioned above the typed name.

Ted M. Brandt  
President, Missouri Alpha

7 East Alhambra Drive  
Columbia, Missouri 65201

cc: Dean William R. Kimel  
Dean Ralph G. Nevins  
File

December 4, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee

Gentlemen:

As President of Tau Beta Gamma, the engineering honor society at Kansas State University, I formally petition the Tau Beta Pi Association for the establishment of a chapter at the Kansas State University College of Engineering.

If the petition is favorably accepted, and a chapter is instituted at Kansas State, we, the petitioning group, pledge to abide by the Constitution and By-laws of the Association as the legislative authority and the Executive Council as the executive and judicial authority. We further pledge to uphold and maintain the high standards of Tau Beta Pi.

Very truly yours,

A handwritten signature in cursive script that reads "John H. Meiners". The signature is written in dark ink and is positioned above the printed name and title.

John H. Meiners  
President, Tau Beta Gamma



KANSAS STATE UNIVERSITY *Manhattan, Kansas 66502*

DEPARTMENT OF MECHANICAL ENGINEERING  
SEATON HALL

December 13, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee

Dear Sirs:

I understand that our local engineering honorary, Tau Beta Gamma, wishes to become affiliated with Tau Beta Pi.

Being a member of Tau Beta Pi and having been a faculty member here at Kansas State University since 1960, I wish to recommend that you approve the petition.

Sincerely,

A handwritten signature in cursive script that reads 'F. C. Appl'.

F. C. Appl  
Professor

wsp



KANSAS STATE UNIVERSITY

Department of Civil Engineering  
Seaton Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5862

December 13, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37900

Gentlemen:

The Engineering Honor Society, Tau Beta Gamma, here at Kansas State University has expressed the desire to affiliate with Tau Beta Pi.

I believe that having these bright, young, technical leaders as active members of Tau Beta Pi would not only stimulate their personal professional growth but would also enhance the growth and prestige of the organization.

As a faculty member at Kansas State University, and a member of Tau Beta Pi, I wish to recommend and strongly support this affiliation.

Fraternally,

A handwritten signature in cursive script, reading 'Robert R. Snell'.

Robert R. Snell, Head  
Department of Civil Engineering

RRS:pjb



KANSAS STATE UNIVERSITY *Manhattan, Kansas 66502*

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DEPARTMENT OF NUCLEAR ENGINEERING  
SEATON HALL

December 15, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville TN 37900

Gentlemen:

The Tau Beta Gamma Society at Kansas State University has expressed the desire to affiliate with your organization.

I believe that the affiliation with Tau Beta Pi would not only stimulate the personal professional growth of the members, but would also enhance the growth and prestige of the organization.

As a faculty member at Kansas State University and a member of Tau Beta Pi, I am writing to express my recommendation and strong support for this affiliation.

Fraternally,

Richard E. Faw  
Member, Beta of Ohio

REF/jlg

bcc: John Kramer, Industrial Engineering



KANSAS STATE UNIVERSITY *Manhattan, Kansas 66502*

DEPARTMENT OF MECHANICAL ENGINEERING  
SEATON HALL

December 15, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee

Dear Sirs:

I am writing to offer full support for the petition of Tau Beta Gamma, local engineering honorary, for affiliation with Tau Beta Pi.

I feel all standards of Tau Beta Pi are in evidence at Kansas State University and, as a Tau Beta Pi member, I strongly support the petition for foundation of a Tau Beta Pi chapter here.

Sincerely,

A handwritten signature in cursive script, reading 'Robert L. Gorton'.

Robert L. Gorton  
Associate Professor

wsp





KANSAS STATE UNIVERSITY

Department of Industrial Engineering  
Engineering Shops Building  
Manhattan, Kansas 66506  
Phone: 913 532-5606

December 18, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37900

Gentlemen:

As a faculty member at Kansas State University and a member of Tau Beta Pi, I am writing to express my support of Tau Beta Gamma's petition for national affiliation.

Sincerely,

A handwritten signature in cursive script that reads 'Kenneth A. Ebeling'.

Kenneth A. Ebeling  
North Dakota - Alpha

KAE:mj

# *Kansas State University*

Manhattan, Kansas 66502

Engineering Experiment Station  
Seaton Hall

December 13, 1972

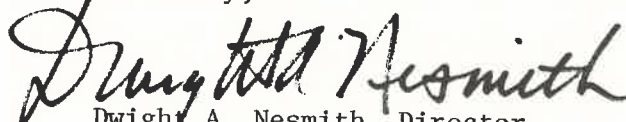
Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37900

Dear Sir:

As a member of Tau Beta Pi at Northwestern University as an undergraduate student, and having been without association with the organization since I came to Kansas State, I am extremely pleased to assist in encouraging Tau Beta Gamma to start here at Kansas State and do fully support their application for association with national Tau Beta Pi.

I am certain that the group of young men here at Kansas State and the other Tau Beta Pi members who are currently on the faculty, have done an excellent job in organizing the colony and I trust there will be no problems in their acceptance by national.

Cordially,

A handwritten signature in dark ink, reading "Dwight A. Nesmith". The signature is fluid and cursive, with the first name "Dwight" being more prominent and stylized.

Dwight A. Nesmith, Director  
Engineering Experiment Station

DAN/mm



KANSAS STATE UNIVERSITY

Department of Agricultural Engineering  
Seaton Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5580

December 11, 1972

Dr. Frank Tillman, Head  
Department of Industrial Engineering  
Engineering Shops  
UNIVERSITY

Dear Frank:

I believe it is highly appropriate that there ultimately be an active chapter of Tau Beta Pi in the College of Engineering at Kansas State University. The presence of a chapter would contribute much to the College as would our students to Tau Beta Pi.

As a faculty member at Kansas State, and a member of Tau Beta Pi, I am writing to express my recommendation and strong support for this affiliation.

Sincerely,

*William H. Johnson (cg)*  
William H. Johnson  
Professor and Head

CSG



KANSAS STATE UNIVERSITY

Department of Industrial Engineering  
Engineering Shops Building  
Manhattan, Kansas 66506  
Phone: 913 532-5606

December 12, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37916

Gentlemen:

Tau Beta Gamma, a local engineering honor society here at Kansas State University, has expressed their desire to affiliate with Tau Beta Pi.

I believe that the high quality of these students would benefit the national association and that the proposed affiliation would simulate these students to a new level of personal growth.

As a faculty member of Kansas State University and a member of Tau Beta Pi, I am writing to express my recommendation and strong support for this affiliation.

Sincerely,

A handwritten signature in cursive script, appearing to read 'L. E. Grosh'.

L. E. Grosh  
Member Louisiana Alpha

LEG:jer



KANSAS STATE UNIVERSITY *Manhattan, Kansas 66502*

DEPARTMENT OF MECHANICAL ENGINEERING, SEATON HALL

December 11, 1972

Executive Council  
Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee

Dear Sirs:

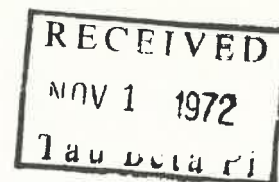
I was very pleased when I learned that an attempt was being made to establish a chapter of Tau Beta Pi at Kansas State University. I have followed the efforts of the members and I am very impressed by their growth rate. I think an organization such as Tau Beta Pi will greatly strengthen our academic program at Kansas State and will provide students who achieve membership a lasting reward.

I understand that the local colony is now in the process of submitting a petition for a local chapter and I wish to give my recommendation in support of this action.

Sincerely,

A handwritten signature in dark ink, reading 'Hugh S. Walker'. The signature is written in a cursive, flowing style with a prominent initial 'H'.

Hugh S. Walker  
Associate Professor  
Member, Louisiana Alpha



HALLMARK CARDS INCORPORATED  
KANSAS CITY, MISSOURI 64114

October 30, 1972

The Executive Council  
The Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37916

A letter has been forwarded to our office indicating that Kansas State University is in the process of submitting a petition to establish a Tau Beta Pi Chapter at Kansas State University.

For your information, Hallmark Cards, Inc. actively recruits on the Kansas State Campus and are aware of the fine engineering programs at K-State. We concur that a Tau Beta Pi Chapter would add prestige to the University and also help attract competent high school graduates interested in the engineering field.

Sincerely,

Wayne Reeves  
College Relations

WR:dx

**TENNESSEE VALLEY AUTHORITY**  
KNOXVILLE, TENNESSEE 37902

November 17, 1972

The Executive Council  
The Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37916

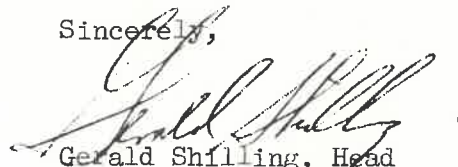
Dear Sirs:

This letter is written in response to a request by engineering students at Kansas State University for support of an effort to establish a Tau Beta Pi Chapter at the university.

The Tennessee Valley Authority has solicited engineering applicants from Kansas State University and its predecessor, Kansas State College of Agriculture and Applied Science, for over thirty years. For the past ten years TVA has actively interviewed and recruited engineering graduates on campus at Kansas State. Although geographical distance has somewhat limited the success of our recruiting efforts, we have hired several bright young men for positions in our engineering divisions. Supervisors report that these men are well prepared in the basic engineering disciplines and adapt well to the challenges of professional engineering assignments.

From firsthand knowledge of the capabilities of these graduates, we conclude that the engineering programs at Kansas State University are equal in quality to similar programs offered at other major universities at which we recruit.

Sincerely,



Gerald Shilling, Head  
Employment Services Section  
Division of Personnel

**BOEING**

WICHITA DIVISION WICHITA, KANSAS 67210

October 10, 1972

The Executive Council  
The Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37916

Gentlemen:

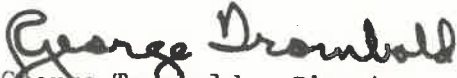
The Boeing Company has enjoyed the quality product of graduating engineering students from Kansas State University on all degree levels. Our experiences with their graduates have given us some of our leaders of today. Our recruiting visit this fall could produce some of our leaders of tomorrow.

A rewarding college-industry relationship has been established among faculty members and students through plant tours and technical presentations made on the campus. We believe that it is certainly the intent of the College of Engineering to keep informed of all new developments and technologies, related both to industry and the education profession, in order to provide their students with the latest tools to build their profession.

The Boeing Company is pleased to offer this letter as support to the honorary engineering society, Tau Beta Gamma, in their effort to establish a Tau Beta Pi Chapter at Kansas State University.

Sincerely,

THE BOEING COMPANY  
Wichita Division

  
George Trombold - Director of  
Industrial and Public Relations

GT:mm



GENERAL MOTORS CORPORATION

November 3, 1972

The Executive Council  
The Tau Beta Pi Association  
University of Tennessee  
Knoxville, Tennessee 37916

Dear Sirs

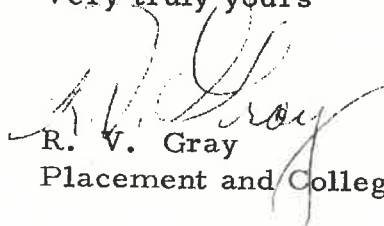
It is my understanding that Kansas State University has petitioned for a Tau Beta Pi Chapter. I wish to express my support in granting this request.

I personally have visited Kansas State University twice a year in a recruiting capacity for over 14 years. General Motors looks upon Kansas State University as one of its major sources of engineering talent at the bachelor, master and PhD levels.

A number of former graduates of this University are presently in key positions in General Motors and I am sure that much of it can be contributed to the fine engineering program offered at the University.

Personally I hope that the Tau Beta Pi Chapter will give very serious consideration in granting Kansas State University a chapter in the very near future.

Very truly yours



R. V. Gray  
Placement and College Relations

SW



December 19, 1972

TO WHOM IT MAY CONCERN:

This is to certify that the following named students, regularly enrolled as full-time day students in the College of Engineering, Kansas State University, meet the membership requirements set forth in the "Constitution and Bylaws and Eligibility Code of the Tau Beta Pi Association," Article VIII, Section 2, Sub-sections (f) and (h). This is in terms of meeting the requirement of being in the upper eighth (juniors) or upper fifth (seniors) of their respective classes, and as compared with students within the same department.

John H. Meiners	Ray Dilts
Bill Flanders	Everett Ramer
Kim Myers	John Schlup
Carl Wilkens	Edward Juno
Dale Zellers	John Wilson
Alan Johnson	Don Glaser
Steve Brooks	Terry Weaver
Wayne Unruh	John Kramer
Janet Hull	Bradley Maurer
Thomas Trent	Eric Schoeff
Richard Kussman	Darrell Sabatka

Sincerely,

Robert E. Crank  
Assistant to the Dean

REC:mrr



KANSAS STATE UNIVERSITY

Department of Agricultural Engineering  
Seaton Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5580

19 December 1972

TO WHOM IT MAY CONCERN:

This is to certify that Mr. Dean E. Eisenhauer, presently enrolled in the Graduate School in quest of a Master of Science Degree in Agricultural Engineering at Kansas State University meets the membership requirements as set forth in The Constitution and Bylaws and Eligibility Code of Tau Beta Pi as specified by Article VIII, Section 3(C).

Mr. Eisenhauer has maintained a 4.00 gradepoint average during his graduate program work. In addition, he was recently elected to membership in the PHI KAPPA PHI Scholastic Honorary Organization. This honor required that his gradepoint average be among the top 5% of all graduate students.

Sincerely,

G. E. Fairbanks  
Professor

ks

DEGREES HELD BY DEAN EISENHAUER

<u>DEGREE</u>	<u>INSTITUTION</u>	<u>YEAR</u>
Associate of Arts	Fairbury Junior College Fairbury, Nebraska	1969
Bachelor of Science in Agricultural Engineering	Kansas State University Manhattan, Kansas	1971

ALUMNI MEMBERS OF TAU BETA GAMMA

KANSAS STATE UNIVERSITY

Kenneth Bosse	Wheaton, Ks.
Duane Downtain	1311 Hattie, Garden City, Ks.
Michael Gard	702 Maplewood Dr., El Dorado, Ks.
Arun Kumar Gupta	Dept. of Physics, Univ., Jodhpur Raj, India
Ronald Holmes	4621 West Dr., Topeka, Ks.
Dennis Heurter	510 Calhoun, Marysville, Ks.
Curtis Jilg	105 Hillside, El Dorado, Ks.
Mark Keast	R.R. 1, Howard, Ks.
Dave Kolarik	R.R. 3, Caldwell, Ks.
James Leach	116 N. 3rd, Osborne, Ks.
Larry Marten	Wheaton, Ks.
Steve Mattix	200 W. 3rd, Ellinwood, Ks.
Michael Pacey	Oak Hill, Ks.
Richard Ray	8516 W. 55 Terr., Shawnee Mission, Ks.
Larry Schroeder	Box 116, Vermillion, Ks.
John Swain	1821 So. Erie, Wichita, Ks.

## ENTRANCE REQUIREMENTS

Residents of Kansas who are graduated from an accredited Kansas high school are admitted to Kansas State University. Out-of-state applicants are expected to have a strong academic rank in class and to have made good scores on the American College Test battery.

No academically qualified applicant will be denied admission to the University on the basis of race, color, sex, religion, or national origin.

Entering freshmen should have completed the high school mathematics courses which are necessary prerequisite for their curriculum.

All transfer students are expected to have at least a C average in previous academic work to be considered for admission to the University.

Freshmen applicants to KSU are required to take the ACT and have their test scores forwarded to the University.

## THE COLLEGE OF ENGINEERING

A course of study leading to a degree in the College of Engineering provides a well-rounded university education designed to develop the general qualities of leadership and human understanding inherent to an educated person.

In addition it equips the student with a broad theoretical background to meet the new and demanding problems of our rapidly expanding technology. To assure the continued economic and technologic development of this nation, an increasing number of high school students should select careers in this challenging profession.

In the College of Engineering at KSU an outstanding faculty combines with excellent physical facilities to provide a stimulating environment in which to prepare for a professional career.

The College of Engineering offers the Bachelor of Science degree, fully accredited by E.C.P.D., in each of the following curriculums:

- Agricultural Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Nuclear Engineering

#### LENGTH OF ENGINEERING CURRICULUM

Each of the engineering curriculums leading to a Bachelor of Science degree is a four year (eight semester) program. Each semester is a minimum of 15 weeks plus one week for final examinations. The engineering student must take an average of 17 credit hours a semester in order to complete the program in four years.

# ENGINEERING DEGREES AWARDED

Engineering degrees awarded during the 1968-72 period are shown in the following table:

<u>Curriculum</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Agricultural Engineering	6	12	16	9	10
Civil Engineering	34	34	29	25	46
Chemical Engineering	24	17	10	9	21
Electrical Engineering	64	76	55	45	66
Industrial Engineering	11	16	8	14	22
Mechanical Engineering	39	44	53	44	59
Nuclear Engineering	<u>12</u>	<u>13</u>	<u>15</u>	<u>15</u>	<u>15</u>
Total	190	212	186	161	239

## UNDERGRADUATE ENROLLMENT (1972)

Undergraduate enrollment by class and by curriculum based on the Fall registration figures for 1972 are as follows:

Curriculum	Fres.	Soph.	Junior	Senior
Agricultural Engineering	12	16	15	17
Civil Engineering	22	34	39	52
Chemical Engineering	27	22	17	33
Electrical Engineering	41	57	57	93
Industrial Engineering	9	17	18	23
Mechanical Engineering	16	40	51	75
Nuclear Engineering	19	20	32	29
General Engineering	67	6	0	0



DEPARTMENT OF CHEMICAL ENGINEERING

Courses

Akins, Richard G.	ChE Thermodynamics Lab
Associate Professor	Graduate Seminar

Honorary and Professional Societies:

American Institute of Chemical Engineers  
Sigma Tau  
Omicron Delta Kappa

Bates, Herbert T.	ChE Lab II
Professor	Engineering Materials
	Engineering Assembly

Honorary and Professional Societies:

American Institute of Chemical Engineers-Energy Conversion &  
Transport Division  
-American Society for Engineering Education-Chemical Engineering  
Division -- Kansas-Nebraska Section  
American Chemical Society, Chairman, Nebraska Section, 1949  
Registered Professional Engineer Kansas 3918  
Sigma Xi  
Sigma Tau  
Phi Kappa Phi  
Phi Lambda Upsilon  
Manhattan Chamber of Commerce

Erickson, Larry E.	Process Analysis & Design
Professor	

Honorary and Professional Societies:

Sigma Xi  
Phi Kappa Phi  
Phi Lambda Upsilon  
Sigma Tau  
American Institute of Chemical Engineers  
Kansas Water Pollution Control Association  
American Chemical Society  
American Society for Microbiology  
American Water Resources Association  
The Society of Fermentation Technology (Japan)

New York Academy of  
Sciences  
American Society for  
Engineering Education  
Kansas Academy of Sciences

Fan, L. T.  
Professor & Head

Topics of Reaction Engineering

Honorary and Professional Societies:

American Chemical Society  
American Institute of Chemical Engineers (Full)  
American Society of Engineering Education  
Society of Chemical Engineers (Japan)  
Professional Engineer in Formosa  
Sigma Xi  
Phi Kappa Phi  
Phi Lambda Upsilon  
Society of Engineering Sciences (Founding Member)  
Listed in American Men of Science  
Listed in Leaders in American Science  
American Association for the Advancement of Science  
American Water Resources Association, 1970  
Listed in Outstanding Educators of America

Hall, Raymond C.  
Assistant Professor

None

Honorary and Professional Societies:

American Institute of Chemical Engineers  
American Chemical Society  
Sigma Xi

Kyle, Benjamin G.  
Professor

ChE Thermodynamics Research  
Advanced ChE Thermodynamics

Honorary and Professional Societies:

American Chemical Society  
American Institute of Chemical Engineers  
American Society for Engineering Education  
Phi Kappa Phi  
Phi Lambda Upsilon  
Sigma Xi

Matthews, John C.  
Associate Professor

Advanced Transport Phenomena I  
Introduction to Process Analysis

Honorary and Professional Societies:

Sigma Xi  
American Institute of Chemical Engineers  
New York Academy of Sciences  
American Association for the Advancement of Science

Retzloff, David G.  
Assistant Professor

Process Analysis & Design Research  
Process Analysis & Design Quiz  
Process Analysis & Design Lab

Honorary and Professional Societies:

Sigma Tau Engineering Honor  
Omega Chi Epsilon Chemical Engineering Honor  
American Institute of Chemical Engineers  
American Chemical Society  
American Association for the Advancement of Science  
Sigma Xi

Walawender, Walter P.  
Assistant Professor

Process Optimization  
Engineering Assembly

Engineering Concepts  
Honor Seminar

Honorary and Professional Societies:

Associate Member of Sigma Xi  
American Association of University Professors  
American Institute of Chemical Engineers

NAME: Earl Eugene Baugher

RANK: Assistant Professor of Agricultural Engineering

DEGREES: B.S. Kansas State University, 1958  
M.S. Kansas State University, 1964

HONORARY AND PROFESSIONAL SOCIETIES:

Kansas Vocational Association  
Kansas Vocational Agriculture Teachers Association  
National Vocational Agriculture Teachers Association  
American Vocational Association  
American Association of Teacher Educators in Agriculture  
Gamma Sigma Delta  
Phi Kappa Phi

TEACHING LOAD:

Farm Power  
Agricultural Mechanic Methods

NAME: Do Sup Chung

YEAR BORN: 1935

RANK: Assistant Professor of Agricultural Engineering

DEGREES: B. S. Purdue University, 1958  
M. S. Kansas State University, 1960  
Ph.D. Kansas State University, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Phi Lambda Upsilon  
Alpha Mu  
American Society of Agricultural Engineers  
American Institute of Chemical Engineers  
American Association of Cereal Chemists  
American Men of Science

NAME: Stanley J. Clark

RANK: Associate Professor of Agricultural Engineering

DEGREES: B.S., Kansas State University, 1954  
M.S., Kansas State Univeristy, 1959  
Ph.D., Purdue University, 1964

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Agricultural Engineers  
American Society of Engineering Education  
Kansas Engineering Society  
National Society of Professional Engineers  
International Society for Terrain - Vehicle Systems  
Sigma Xi  
Sigma Tau  
Gamma Sigma Delta

TEACHING LOAD:

Advanced Power and Machinery

NAME: Gustave Edmund Fairbanks

YEAR BORN: 1915

RANK: Professor of Agricultural Engineering

DEGREES: B. S. Kansas State University, 1941  
M. S. Kansas State University, 1950

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Gamma Sigma Delta  
Sigma Tau  
Phi Kappa Phi

TEACHING LOAD:

Design of Agricultural Machines  
Engineering in Agriculture

NAME: Teddy Omar Hodges YEAR BORN: 1922

RANK: Professor of Agricultural Engineering

DEGREES: B.S., Texas Agricultural & Mechanical College, 1950  
M.S., Iowa State University, 1957  
Ph.D., Michigan State University, 1959

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Agricultural Engineers  
American Society for Engineering Education  
Kansas Engineering Society  
National Society of Professional Engineers  
Phi Kappa Phi  
Sigma Xi  
Tau Beta Pi  
Alpha Zeta  
Gamma Sigma Delta  
Sigma Tau  
Professional Engineer

TEACHING LOAD:

Agricultural Process Engineering  
Mechanized Feed Handling

NAME: William H. Johnson YEAR BORN: 1922

RANK: Professor and Head of Agricultural Engineering

DEGREES: B.S., Agriculture, Ohio State University, 1948  
B.S., Agricultural Engineering, Ohio State Univ., 1948  
M.S., Ohio State University, 1953  
Ph.D., Michigan State University, 1960

HONORARY AND PROFESSIONAL SOCIETIES:

Alpha Epsilon - Agricultural Engineering Honorary  
Phi Eta Sigma - Freshman Honorary  
Tau Beta Pi - Engineering Honorary  
Gamma Sigma Delta - Agricultural Honorary  
Sigma Xi - Scientific Honorary  
American Men of Science  
American Society of Agricultural Engineers  
American Society for Engineering Education  
National Society of Professional Engineers  
Kansas Engineering Society

TEACHING LOAD:

Graduate Seminar in Agricultural Engineering

NAME: George Herbert Larson YEAR BORN: 1915

RANK: Professor of Agricultural Engineering

DEGREES: B.S., Kansas State University, 1939  
M.S., Kansas State University, 1940  
Ph.D., Michigan State University, 1955

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Tau  
Phi Kappa Phi  
Sigma Xi  
Pi Mu Epsilon  
Sigma Pi Sigma  
Tau Beta Pi  
Gamma Sigma Delta  
American Society of Agricultural Engineers  
American Society of Engineering Education  
Kansas Engineering Society  
National Professional Engineering Society  
Professional Engineer  
American Association for the Advancement of Science

NAME: Ralph Iden Lipper YEAR BORN: 1916

RANK: Associate Professor of Agricultural Engineering

DEGREES: B.S., Kansas State University, 1941  
M.S., Kansas State University, 1950

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Kappa Phi  
Sigma Xi  
Sigma Tau  
Steel Ring  
Gamma Sigma Delta  
American Society of Agricultural Engineers  
American Society for Engineering Education  
National Society of Professional Engineers  
Kansas Engineering Society  
Professional Engineer

TEACHING LOAD:

Farm Electrification and Soil Conservation  
Farmstead Utilities

NAME: Harry Leo Manges

YEAR BORN: 1928

TITLE: Assistant Professor of Agricultural Engineering

DEGREES: B. S. Kansas State University, 1949  
M. S. Kansas State University, 1959  
Ph.D. Oklahoma State University, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Agricultural Engineers  
Professional Engineer  
Gamma Sigma Delta

TEACHING LOAD:

Irrigation Practice  
Soil and Water Engineering

NAME: Charles K. Spillman

YEAR BORN: 1934

RANK: Assistant Professor of Agricultural Engineering

DEGREES:

B.S. University of Illinois, 1960  
M.S. University of Illinois, 1963  
Ph.D. Purdue University, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Theta Kappa  
Tau Beta Pi  
Alpha Epsilon  
Sigma Xi  
American Society of Agricultural Engineers  
American Society of Heating, Refrigerating, and  
Air Conditioning Engineering  
American Society for Engineering Education  
National Society of Professional Engineers  
Kansas Engineering Society  
Analog Hybrid Computer Educational Users Group

TEACHING LOAD:

Engineering Concepts  
Environmental Analysis for Plants and Animals



NAME: Mahamed Tawfik Abdél-Moneim

TITLE: Instructor

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
American Society for Engineering Education  
American Society of Mechanical Engineers

TEACHING LOAD:

Statics  
Fluid Mechanics

NAME: Lee R. Calcote

YEAR BORN: 1923

RANK: Professor

DEPARTMENT: Applied Mechanics

DEGREES: B.S. Texas Agricultural and Mechanical University, 1948  
M.Eng. Texas Agricultural and Mechanical University, 1952  
Ph.D. University of Illinois, 1963

HONORARY AND PROFESSIONAL SOCIETIES:

American Society for Engineering Education  
Society for Experimental Stress Analysis  
American Association for the Advancement of Science  
Tau Beta Pi  
Phi Kappa Phi  
Sigma Xi

TEACHING LOAD:

Dynamics  
Mechanics of Materials Lab (2 sections)

NAME: James F. Crary YEAR BORN: 1913  
TITLE: Assistant Professor, Applied Mechanics  
DEGREES: B. S. Electrical Engineering, Kansas State University, 1947

HONORARY AND PROFESSIONAL SOCIETIES:

National Society of Professional Engineers  
American Institute of Electrical Engineers  
American Society for Engineering Education  
Kansas Engineering Society  
American Concrete Institute

TEACHING LOAD:

Dynamics  
Mechanics of Materials Lab

NAME: Everett E. Haft YEAR BORN: 1923  
TITLE: Professor of Applied Mechanics  
DEGREES: B. S. University of Wisconsin, 1947  
M. S. University of Wisconsin, 1951  
Ph. D. University of Wisconsin, 1955

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Phi Kappa Phi  
American Society of Engineering Education  
American Association for the Advancement of Science

TEACHING LOAD:

Strength of Materials  
Dynamics  
Research in Applied Mechanics

NAME: Kuo-Kuang Hu YEAR BORN: 1936

RANK: Assistant Professor

DEPARTMENT: Applied Mechanics

DEGREES: M.S. Kansas State University, 1966  
Ph.D. Kansas State University, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Kappa Phi

TEACHING LOAD:

Statistics  
Mechanics of Materials

NAME: Chi-lung Huang YEAR BORN: 1930

TITLE: Associate Professor of Applied Mechanics

DEGREES: B.S. National Taiwan University, China, 1954  
M.S. University of Illinois, 1960  
Dr. of Engg.. Yale University, 1964

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Phi Tau Phi  
Society of Engineering Science  
American Institute of Aeronautics and Astronautics

TEACHING LOAD:

Dynamics (2 sections)  
Research in Applied Mechanics

NAME: John E. Kipp YEAR BORN: 1930

TITLE: Associate Professor, Department of Applied Mechanics  
Staff Associate, Environmental Research Laboratory

DEGREES: B.S. Mechanical Engineering, University of Kansas, 1951  
M.S. Mechanical Engineering, University of Kansas, 1955  
Ph.D. Engineering, Oklahoma State University, 1968

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Tau  
Pi Tau Sigma  
Pi Mu Epsilon  
Theta Tau  
American Society for Engineering Education  
Member, American Society of Heating, Refrigeration, and Air  
Conditioning Engineers Technical Committee 1.2 (Instrumentation and Measurement)

TEACHING LOAD:

Fluid Mechanics (2 sections)  
Intermediate Fluid Mechanics  
Research in Applied Mechanics

NAME: Philip G. Kirmser YEAR BORN: 1919

TITLE: Professor and Head of Department of Applied Mechanics

DEGREES: B.S. Chemical Engineering, University of Minnesota, 1939  
M.S. Mathematics, University of Minnesota, 1944  
Ph.D. Mathematics, University of Minnesota, 1958

HONORARY AND PROFESSIONAL SOCIETIES:

American Mathematical Association  
American Mathematical Society  
Society for Industrial and Applied Mathematics  
(SIAM Visiting Lecturer 1971-72)  
Royal Netherlands Society of Engineers  
Phi Lambda Upsilon  
Phi Kappa Phi  
Pi Mu Epsilon  
Sigma Xi  
American Society for Engineering Education  
(President, Kansas-Nebraska Section 1961-62)

TEACHING LOAD:

Topics in Theoretical and Applied Mechanics  
Research in Applied Mechanics

NAME: Harry D. Knostman YEAR BORN: 1933

TITLE: Assistant Professor of Applied Mechanics

DEGREES: B.S. Kansas State University, 1955  
M.S. Kansas State University, 1961  
Ph.D. Colorado University, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Kappa Phi  
Sigma Tau  
Steel Ring  
Jr. Member American Society of Civil Engineers  
American Society for Engineering Education

TEACHING LOAD:

Statics (2 sections)

NAME: Edwin C. Lindly YEAR BORN: 1921

TITLE: Associate Professor of Applied Mechanics

DEGREES: B.S. Oklahoma State University, 1942  
M.S. Purdue University, 1949  
M.S. Kansas State University, 1957  
Ph.D. Iowa State University, 1964

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Tau  
Pi Tau Sigma

TEACHING LOAD:

Strength of Materials A Lab  
Mechanics of Materials  
Elastic Stability

NAME: Frank J. McCormick

YEAR BORN: 1906

TITLE: Professor of Applied Mechanics

DEGREES: B.S. Architectural Engineering, Iowa State College, 1927  
M.S. Structural Engineering, Iowa State College, 1931

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Civil Engineers  
American Society for Engineering Education  
Tau Beta Pi  
Pi Mu Epsilon  
Phi Kappa Phi  
Sigma Tau  
Society for Experimental Stress Analysis

TEACHING LOAD:

Statics and Dynamics  
Mechanics of Materials  
Topics in Theoretical and Applied Mechanics  
Statics

NAME: Charles R. McDonald

YEAR BORN: 1933

TITLE: Instructor, Department of Applied Mechanics

DEGREES: B.S. Agricultural Engineering, Kansas State University, 1960

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Professional Engineers  
Sigma Tau  
Society of Automotive Engineers

TEACHING LOAD:

Applied Mechanics  
Strength of Materials A Lab  
Statics and Dynamics

NAME: Richard, G. Akins  
RANK: Associate Professor  
DEPARTMENT: Chemical Engineering  
DEGREES: B.S., 1957, University of Louisville  
M.S., 1958, University of Louisville  
Ph.D., 1962, Northwestern University

HONORARY AND PROFESSIONAL SOCIETIES:

American Institute of Chemical Engineers  
Sigma Tau  
Omicron Delta Kappa

TEACHING LOAD:

Ch.E. Thermodynamics Lab  
Graduate Seminar

NAME: Herbert T. Bates                      YEAR BORN: 1913  
RANK: Professor  
DEPARTMENT: Chemical Engineering  
DEGREES: B.S. Chemical Engineering, Iowa State College, 1935  
M.S. Chemical Engineering, Virginia Polytechnic  
Institute, 1938  
Ph.D. Chemical Engineering, Iowa State College, 1941

HONORARY AND PROFESSIONAL SOCIETIES:

American Institute of Chemical Engineers-Energy Conversion  
& Transport Division  
American Society for Engineering Education-Chem. Engg. Div. -  
Kansas - Nebraska Section  
American Chemical Society, Chairman, Nebraska Section, 1949  
Registered Professional Engineer Kansas 3918  
Sigma Xi  
Sigma Tau  
Phi Kappa Phi  
Phi Lambda Upsilon  
Manhattan Chamber of Commerce

TEACHING LOAD:

Ch.E. Lab II  
Engineering Materials  
Engineering Assembly

NAME: Larry Eugene Erickson

YEAR BORN: 1938

TITLE: Professor of Chemical Engineering

DEGREES: B.S. Kansas State University, 1960  
Ph. D. Kansas State University, 1964

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Phi Kappa Phi  
Phi Lambda Upsilon  
Sigma Tau  
American Institute of Chemical Engineers  
Kansas Water Pollution Control Association  
American Chemical Society  
American Society for Microbiology  
American Water Resources Association  
The Society of Fermentation Technology (Japan)  
New York Academy of Sciences  
American Society for Engineering Education  
Kansas Academy of Sciences

TEACHING LOAD:

Process Analysis and Design

NAME: Liang-tseng Fan

YEAR BORN: 1929

TITLE: Professor of Chemical Engineering SOCIAL SECURITY NO.: 509-34-0943

DEGREES:

B. S. National Taiwan University, Taiwan, China (Chemical Engineering) 1951.  
M. S. Kansas State University (Chemical Engineering) 1954.  
Ph.D. West Virginia University (Chemical Engineering) 1957.  
M. S. West Virginia University (Mathematics) 1958.

HONORARY AND PROFESSIONAL SOCIETIES:

American Chemical Society  
American Institute of Chemical Engineers (Full)  
American Society of Engineering Education  
Society of Chemical Engineers (Japan)  
Professional Engineer in Formosa  
Sigma Xi  
Phi Kappa Phi  
Phi Lambda Upsilon  
Society of Engineering Sciences (Founding Member)  
Listed in American Men of Science  
Listed in Leaders in American Science  
American Association for the Advancement of Science  
American Water Resources Association, 1970  
Listed in Outstanding Educators of America

TEACHING LOAD:

Topics in Reaction Engineering



NAME: Raymond C. Hall YEAR BORN: 1918  
RANK: Assistant Professor  
DEPARTMENT: Chemical Engineering  
DEGREES: B.S. Iowa State University, 1941  
M.S. Kansas State University, 1951  
HONORARY AND PROFESSIONAL SOCIETIES:

American Institute of Chemical Engineers  
American Chemical Society  
Sigma Xi

NAME: Benjamin G. Kyle YEAR BORN: 1927  
TITLE: Professor of Chemical Engineering  
DEGREES: B.S. Georgia Institute of Technology, 1950  
M.S. University of Florida, 1955  
Ph. D. University of Florida, 1958

HONORARY AND PROFESSIONAL SOCIETIES:

American Chemical Society, American Institute of Chemical  
Engineers, American Society for Engineering Education, Phi  
Kappa Phi, Phi Lambda Upsilon, Sigma Xi

TEACHING LOAD:

ChE Thermodynamics Research  
Advanced ChE Thermodynamics

NAME: John C. Matthews YEAR BORN: 1936  
TITLE: Associate Professor of Chemical Engineering  
DEGREES: B.Sc. Washington University, 1959  
D.Sc. Washington University, 1965

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
A.I.Ch.E.  
New York Academy of Sciences  
American Association for the Advancement of Science

TEACHING LOAD:

Advanced Transport Phenomena I  
Introduction to Process Analysis

NAME: David G. Retzloff YEAR BORN: 1939

TITLE: Assistant Professor of Chemical Engineering

DEGREES: B.S. University of Pittsburgh, 1963  
M.S. University of Pittsburgh, 1965  
Ph.D. University of Pittsburgh, 1967

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Tau Engineering Honor  
Omega Chi Epsilon Chemical Engineering Honor  
American Institute of Chemical Engineers  
American Chemical Society  
American Association for the Advancement of Science  
Sigma Xi

TEACHING LOAD:

Process Analysis & Design Research  
Process Analysis & Design Quiz  
Process Analysis & Design Lab

NAME: Walter P. Walawender, Jr. YEAR BORN: 1941

TITLE: Assistant Professor of Chemical Engineering

DEGREES: B.A. Utica College of Syracuse University, 1963.  
M.S. Syracuse University, 1967.  
Ph.D. Syracuse University, 1969.

HONCRARY AND PROFESSIONAL SOCIETIES:

Associate Member of Sigma Xi  
American Association of University Professors  
American Institute of Chemical Engineers

TEACHING LOAD:

Process Optimization  
Engineering Assembly  
Engineering Concepts  
Honor Seminar

Name: Peter B. Cooper

Year Born: 1936

Title: Associate Professor of Civil Engineering

Degrees: BS Lehigh University, 1957  
MS Lehigh University, 1960  
Ph.D. Lehigh University, 1965

Honorary and Professional Societies:

American Society for Engineering Education  
American Society of Civil Engineers  
Joint ASCE Task Committee on Flexural Members  
Chairman, 1972-1975  
Member, Subcommittee 2 - Box Girders, 1967-70  
Member, Subcommittee 6 - Plate Girders, 1966-69  
Advisory Member - AISI Task Force on Research  
Project "Beams in Rigid Building Frames" (1968-1971)  
Sigma Xi, Chi Epsilon  
NSPE and Kansas Engineering Society  
President, Tri-Valley Chapter, Kansas Engineering  
Society (1971-1972)  
Column Research Council  
Registered Professional Engineer in Kansas

TEACHING LOAD:

Engineering Assembly  
Analysis of Statically Determinant Structures  
Analysis of Statically Determinant Structures Lab  
Structural Engineering in Steel  
Structural Engineering in Steel Lab  
Plastic Design of Steel Structures

Name: Vernon H. Rosebraugh

Year Born: 1910

Title: Associate Professor of Civil Engineering

Degrees: B.S. Oregon Institute of Technology, 1933  
B.S. Oregon State University, 1938  
M.A. University of Portland (Oregon), 1952  
C.E. Oregon State University, 1956

Honorary and Professional Societies:

Sigma Xi, Phi Delta Kappa, Phi Kappa Phi  
Registered Professional Engineer  
American Society of Civil Engineers  
American Concrete Institute  
Chi Epsilon

TEACHING LOAD:

Advanced Reinforced Concrete Theory  
Economics of Design and Construction  
Analysis of Statically Indeterminant Structures  
Analysis of Statically Indeterminant Structures

Name: Lawrence A. Schmid

Year Born: 1940

Title: Associate Professor of Civil Engineering

Degrees: BSCE Iowa State University, 1962  
MSCE Iowa State University, 1963  
Ph.D. University of Kansas, 1968

Honorary and Professional Societies

Phi Kappa Phi, Iowa State University, 1962  
Sigma Xi, University of Kansas, 1967  
Chi Epsilon, University of Kansas, 1967  
American Water Works Association  
Water Pollution Control Federation  
American Society of Civil Engineers  
National Society of Professional Engineers  
American Association of Professors in Sanitary Engineering

TEACHING LOAD:

Sanitary Engineering Design  
Sanitary Engineering Design Lab  
Water Supply and Quality Control

Name: Bob L. Smith

Title: Professor of Civil Engineering

Degrees: BSCE, Kansas State University, 1948  
MSCE, Kansas State University, 1953  
Ph.D, Purdue University, 1964

Honorary and Professional Societies:

Phi Kappa Phi, Sigma Tau, Kappa Mu Epsilon  
American Society of Civil Engineers (Member)  
Institute of Traffic Engineers (Associate Member)  
National Society of Professional Engineers  
Kansas Engineering Society  
Licensed Professional Engineer, Kansas (2671)  
Registered Land Surveyor, Kansas  
Sigma Xi, Chi Epsilon

TEACHING LOAD:

Transportation Engineering  
Transportation Engineering Lab  
Traffic Engineering I  
Traffic Engineering Lab  
Regional Planning Engineering  
Regional Planning Engineering Lab

Name: Robert R. Snell

Year Born: 1932

Title: Professor and Head of the Civil Engineering Department

Degrees: BSCE Kansas State University, 1954  
MSCE Kansas State University, 1960  
Ph.D Purdue University, 1963

Honorary and Professional Societies:

Registered Professional Engineer, Kansas, 1959  
Sigma Tau, Phi Kappa Phi, Pi Mu Epsilon, Kansas State University, 1954  
Sigma Xi, Tau Beta Pi, Purdue University, 1962  
Chi Epsilon, Kansas State University, 1965  
American Institute of Steel Construction  
National Society of Professional Engineers  
American Society for Engineering Education  
American Society of Civil Engineers  
Vice-President, Kansas Section, 1971  
President, Kansas Section, 1972  
Member, EMD Committee on Experimental Analysis and Analogues, 1966 - 1972  
Chairman, EMD Committee on Experimental Analysis and Analogues, 1969 - 1971  
Member, Subcommittee 8-Beams with Web Openings, Joint ASCE-AASHO Task Committee on Flexural Members, 1967 - 1970  
Kansas Engineering Society  
Member, Membership Committee, 1964 - 1965  
Member, Society Activities Committee, 1970 - 1971  
Tri-Valley Chapter of K.E.S.  
Secretary-Treasurer, 1965 - 1967  
Vice President, 1968 - 1969  
President, 1969 - 1970  
State Director, 1971 - 1973

TEACHING LOAD:

Advanced Structural Analysis 1

Name: Stuart Endsley Swartz Year Born: 1938

Title: Associate Professor of Civil Engineering

Degrees: BSCE Illinois Institute of Technology, 1959  
MSCE Illinois Institute of Technology, 1962  
Ph.D Illinois Institute of Technology, 1968

Honorary and Professional Societies:

American Society of Civil Engineers  
Member, Career Guidance Committee of State Chapter,  
ASCE, 1970-71; Chairman, 1972-present  
Member, Committee on Experimental Analysis and Analogues,  
Engg. Mechanics Division, 1970-present  
American Concrete Institute  
Member, Committee 115 - Current Research, 1969-present  
Committee 118 - Use of Computers, 1970-present  
National Society of Professional Engineers  
Kansas Engineering Society  
Member, Engineering Preparation Committee, 1968-1972  
Awards Committee, 1972-present  
Tri-Valley Chapter Board of Directors, 1970-1971  
Secretary-Treasurer of Tri-Valley Chapter,  
1971-1973  
Society for Experimental Stress Analysis  
Member, National Membership Committee - Subcommittee  
on Student Membership, 1970-1972  
Chairman, National Membership Committee, 1972-present  
International Association for Bridge and Structural  
Engineering  
Sigma Xi  
Chi Epsilon  
Professional Engineer

TEACHING LOAD:

Structural Engineering in Concrete  
Structural Engineering in Concrete Lab  
Behavior of Structural Metals

NAME: Douglas A. Wallace

Born: 1938

TITLE: Assistant Professor of Civil Engineering

DEGREES: Ph.D. Environmental Engineering, University of Iowa, 1971  
M.S. Environmental Engineering, University of Iowa, 1968  
B.S. Civil Engineering, University of Illinois, 1960

HONORARY AND PROFESSIONAL SOCIETIES:

Chi Epsilon  
Water Pollution Control Federation  
American Water Works Association  
American Society of Civil Engineers  
Kansas Engineering Society  
National Society of Professional Engineers

TEACHING LOAD:

Sanitary Engineering Fundamentals  
Sanitary Engineering Fundamentals Lab (two sections)  
Sanitary Engineering Chemistry

Name: Wayne W. Williams

Born: 12/14/1922  
Powersville, Missouri

Title: Associate Professor of Civil Engineering

Degrees: B.S. Iowa State University, 1951  
M.S. Iowa State University, 1953

Professional Societies:

American Society of Civil Engineers  
Kansas Engineering Society

Teaching Load:

Soil Mechanics  
Soil Mechanics Lab (two sections)  
Foundation Engineering  
Foundation Engineering Lab



Name: Jerome Joseph Zovne

Title: Assistant Professor of Civil Engineering

Degrees: BSCE University of Wisconsin, 1965  
MSCE University of Wisconsin, 1966  
Ph.D Georgia Institute of Technology, 1970

Honorary and Professional Societies:

Chi Epsilon

Sigma Xi

American Society of Civil Engineers

American Geophysical Union

International Association of Hydraulic Research

Teaching Load:

Hydraulic Engineering

Hydraulic Engineering Lab

Hydraulics of Open Channels I

Hydrology



NAME: Nasir Ahmed YEAR BORN: 1940  
CITIZENSHIP: U.S.A.  
RANK: Associate Professor  
DEPARTMENTS: Electrical Engineering & Computer Science  
DEGREES: B.S., University College of Engineering, Bangalore,  
India  
M.S., University of New Mexico, 1963  
Ph.D., University of New Mexico, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Member of the SEQUENCY UNION National Committee  
(A Specialist Working Group of the IEEE Electromagnetic  
Computability group).  
Member, Institute of Electrical and Electronics Engineers  
Member, Sigma Xi

TEACHING LOAD:

Digital Network Theory  
Signal Processing and Classification

NAME: Kendall F. Casey, Jr. YEAR BORN: 1940  
RANK: Associate Professor  
DEPARTMENT: Electrical Engineering  
DEGREES: B.S., California Institute of Technology, 1961.  
M.S.E.E., University of Southern California,  
1962.  
Ph.D., University of Southern California, 1965.

HONORARY AND PROFESSIONAL SOCIETIES:

Institute of Electrical and Electronics Engineers  
American Association of University Professors  
American Association for the Advancement of  
Science  
Society of Sigma Xi  
Eta Kappa Nu

TEACHING LOAD:

Wave Guides, Antennas and Propagation

NAME: Melvin C. Cottom YEAR BORN: 1924

RANK: Assistant Professor

DEPARTMENT: Electrical Engineering

DEGREES: B.S.E.E., University of Kansas, 1945  
M.S.E.E., University of Kansas, 1948

HONORARY AND PROFESSIONAL SOCIETIES:

Institute of Electrical And Electronics Engineers  
Licensed Professional Engineer (Kansas and  
Missouri)  
Kappa Eta Kappa  
Sigma Tau  
Eta Kappa Nu  
Pi Mu Epsilon

TEACHING LOAD:

Circuit Theory 2  
Energy Conversion 1 (two sections)  
Energy Conversion 2  
E.E. Seminar

NAME: John P. Dollar YEAR BORN: 1929

TITLE: Instructor

DEPARTMENT: Electrical Engineering

DEGREES: B.S., Kansas State University, 1956  
M.S., Kansas State University, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

ATEA  
Eta Kappa Nu  
Institute of Electrical and Electronics Engineers  
Kansas Engineering Society  
Kansas Society of Professional Engineers (E.I.T.)  
Pi Mu Epsilon  
American Society for Engineering Education  
Power Engineering Society

TEACHING LOAD:

Electron 1 (two sections)  
Electronics 2

NAME: Richard R. Gallagher YEAR BORN: 1942  
RANK: Assistant Professor  
DEPARTMENT: Electrical Engineering  
DEGREES: B.S.E.E., Iowa State University, 1964  
M.S.E.E., Iowa State University, 1966  
Ph.D.E.E., Iowa State University, 1968

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Eta Kappa Nu  
Tau Beta Pi  
Institute of Electrical and Electronics Engineers  
American Society for Engineering Education  
Medical Electronics and Data Society  
Society for Engineering Science  
Analog/Hybrid Computer Educational Society

TEACHING LOAD:

Circuit Theory 3  
Advanced Feedback Control Systems

NAME: Floyd Wayne Harris  
TITLE: Associate Professor of Electrical Engineering  
DEGREES: B.S., University of Oklahoma, 1956  
M.S., Oklahoma State University, 1962  
Ph.D., Oklahoma State University, 1965

HONORARY AND PROFESSIONAL SOCIETIES:

Institute of Electrical and Electronics Engineers  
Eta Kappa Nu  
Tau Beta Pi  
Sigma Tau  
American Society for Engineering Education

TEACHING LOAD:

Circuit Theory 2

NAME: Norval K. Hearn, Jr. YEAR BORN: 1931

RANK: Instructor

DEGREES: B. A., Kansas State Teachers College, 1957  
M. S., Kansas State University, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Pi Sigma  
Kappa Mu Epsilon

TEACHING LOAD:  
Engineering Materials

NAME: Donald R. Hummels YEAR BORN: 1936

RANK: Assistant Professor

DEPARTMENT: Electrical Engineering

DEGREES: B.S.E.E., Arizona State University, 1967  
M.S.E.E., Arizona State University, 1967  
Ph.D.E.E., Arizona State University, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

American Society for Engineering Education  
Institute of Electrical and Electronics Engineers  
Eta Kappa Nu  
Phi Kappa Phi

TEACHING LOAD:

Introduction to Computer Engineering  
Control Systems Design (two sections)

NAME: Gary L. Johnson YEAR BORN: 1938  
RANK: Assistant Professor  
DEPARTMENT: Electrical Engineering  
DEGREES: B.S.E.E., Kansas State University, 1961  
M.S.E.E., Kansas State University, 1963  
Ph.D.E.E., Oklahoma State University, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Eta Kappa Nu  
Phi Kappa Phi  
Pi Mu Epsilon  
Institute of Electrical and Electronics Engineers  
Sigma Xi  
American Society for Engineering Education  
National Society for Professional Engineers

TEACHING LOAD:

Electromagnetic Theory 1 (3 sections)  
E.E. Seminar (two sections)

NAME: Dale E. Kaufman YEAR BORN: 1930  
TITLE: Associate Professor of Electrical Engineering  
DEGREES: B.S., Kansas State University, 1959  
M.S., Kansas State University, 1963  
Ph.D., Kansas State University, 1967

HONORARY AND PROFESSIONAL SOCIETIES:

Eta Kappa Nu  
Sigma Tau  
Pi Mu Epsilon  
Phi Kappa Phi  
Society of Sigma Xi (Member)  
Institute of Electrical and Electronics Engineers  
(Member)  
Acoustical Society of America (Associate Member)  
American Society for Engineering Education

TEACHING LOAD:

Electrical Engineering Lab 3  
Transistor Circuitry

NAME: Wellington W. Koepsel YEAR BORN: 1921  
RANK: Professor and Head of the Department  
DEPARTMENT: Electrical Engineering  
DEGREES: B.S.E.E., University of Texas, 1944  
M.S.E.E., University of Texas, 1951  
Ph.D.E.E., Oklahoma State University, 1960

HONORARY AND PROFESSIONAL SOCIETIES:

Institute of Electrical and Electronics Engineers, Senior Member  
American Society for Engineering Education  
Eta Kappa Nu  
National Society of Professional Engineers  
National Science Foundation Science Faculty Fellowship, 1959-60

TEACHING LOAD:  
Control Systems Design

NAME: Donald H. Lenhert YEAR BORN: 1934  
TITLE: Associate Professor of Electrical Engineering  
DEGREES: B.S., Kansas State University, 1956  
M.S., Syracuse University, 1958  
Ph.D., University of New Mexico, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Institute of Electrical and Electronics Engineers  
Eta Kappa Nu  
Sigma Tau  
Phi Kappa Phi  
American Society of Engineering Education  
Kansas Engineering Society

TEACHING LOAD:  
Circuit Theory 1 (two sections)

NAME: Michael S. P. Lucas YEAR BORN: 1929  
RANK: Professor  
DEPARTMENT: Electrical Engineering  
DEGREES: Technical Certificate, City & Guilds of London,  
1953.  
M.S., Duke University, 1962.  
Ph.D., Duke University, 1964.

HONORARY AND PROFESSIONAL SOCIETIES:

Eta Kappa Nu  
Institute of Electrical and Electronics  
Engineers  
Sigma Xi  
Amateur Yacht Research Society

TEACHING LOAD:  
Integrated Circuits Engineering (2 sections)  
Solid State Engineering

NAME: William A. Rosenkranz  
RANK: Instructor  
DEPARTMENT: Electrical Engineering Lab 2  
TEACHING LOAD: Electrical Engineering Lab 2 (2 sections)

NAME: Isaac Wakabayashi YEAR BORN: 1925  
RANK: Instructor  
DEGREES: B. S. E. E., University of California, 1954

HONORARY AND PROFESSIONAL SOCIETIES:

Pi Mu Epsilon

TEACHING LOAD: Circuit Theory 2  
Electronics 3  
Electrical Engineering Lab 4

NAME: Duane Eldon Walker YEAR BORN: 1938  
RANK: Instructor  
DEPARTMENT: Electrical Engineering  
DEGREES: B. S. E. E., Kansas State University, 1961  
M. S. E. E., Kansas State University, 1962  
HONORARY AND PROFESSIONAL SOCIETIES:  
Eta Kappa Nu  
Sigma Tau  
TEACHING LOAD:  
Electronics 1  
Electric Circuits and Controls

NAME: Joseph Evans Ward, Jr. YEAR BORN: 1916  
RANK: Professor  
DEPARTMENT: Electrical Engineering  
DEGREES: B. S. University of Texas, 1937  
M. S. University of Illinois, 1940  
HONORARY AND PROFESSIONAL SOCIETIES:  
Phi Eta Sigma  
Eta Kappa Nu  
Tau Beta Pi  
Sigma Tau  
Institute of Electrical and Electronics Engineers  
American Society for Engineering Education  
Licensed Professional Engineer (Kansas)  
TEACHING LOAD:  
Circuit Theory I  
Electronics I



NAME: Corwin A. Bennett YEAR BORN: 1929

RANK: Professor

DEPARTMENT: Industrial Engineering

DEGREES: B.S. Iowa State University, 1950  
M.A. University of Nebraska, 1951  
Ph.D. University of Nebraska, 1954

HONORARY AND PROFESSIONAL SOCIETIES:

American Psychological Association, Society of Engineering  
Psychologists  
Human Factors Society  
Ergonomics Research Society  
Illuminating Engineering Society

TEACHING LOAD:

Industrial Management II  
Engineering Administration  
Graduate Seminar in Industrial Engineering

NAME: Lynn E. Bussey YEAR BORN: 1920

RANK: Associate Professor

DEPARTMENT: Industrial Engineering

DEGREES: B. S., Cornell University, 1947  
M. S., Oklahoma State University, 1969  
Ph.D., Oklahoma State University, 1970

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Phi Kappa Phi  
Alpha Pi Mu  
American Institute of Industrial Engineers (Senior Member)  
American Society of Mechanical Engineers (Member)  
Kansas Engineering Society  
Registered Professional Engineer in Missouri, Kansas and Oklahoma

TEACHING LOAD:

Industrial Management (2 sections)  
Industrial Project Selection

NAME: Earle C. Byers YEAR BORN: 1911  
RANK: Assistant Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: A.B. Greenville College, 1941  
M.S. Kansas State University, 1954

HONORARY AND PROFESSIONAL SOCIETIES:

Industrial Arts Teachers Association  
American Society for Refrigeration Engineers

TEACHING LOAD: Production Processes Lab (4 sections)

NAME: (Mrs.) Doris Lloyd Grosh YEAR BORN: 1924  
RANK: Assistant Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. University of Chicago, 1946  
M.S. Kansas State College, 1949  
Ph.D. Kansas State University, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

American Statistical Society  
Institute of Mathematical Statistics  
Mathematical Association of America  
Pi Mu Epsilon  
Sigma Xi  
MENSA

TEACHING LOAD:

Production Planning and Inventory Control  
Introduction to Operations Research I  
Engineering Reliability and Quality Assurance

NAME: Louis E. Grosh, Jr. YEAR BORN: 1923  
RANK: Associate Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. Louisiana State University, 1944  
B.S. Purdue University, 1947  
M.S. Purdue University, 1949  
Ph.D. Purdue University, 1954

HONORARY AND PROFESSIONAL SOCIETIES:

Association for Computing Machinery  
SIGSIN  
American Math Association  
Sigma Xi  
Tau Beta Pi  
Phi Kappa Phi  
Society for Industrial Mathematics  
Institute for Management Science  
Simulation College  
Society for General Systems Research  
Alpha Pi Mu

TEACHING LOAD:

Advanced Production and Inventory Control  
Industrial Forecasting Techniques and Applications

NAME: Carl U. Hansen YEAR BORN: 1910  
RANK: Assistant Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. Kansas State University, 1936  
M.S. University of Nebraska, 1961  
Presently working toward a Doctor of Science degree at the  
University of Oklahoma

HONORARY AND PROFESSIONAL SOCIETIES:

American Welding Society  
American Institute of Industrial Engineers  
American Society of Engineering Education  
Registered Professional Engineer, Kansas

TEACHING LOAD:

Production Processes  
Production Processes Lab (4 sections)

NAME: Ching-Lai Hwang YEAR BORN: 1929  
RANK: Associate Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: B. S. National Taiwan University, Formosa, 1953  
M. S. Kansas State University, 1960  
Ph.D. Kansas State University, 1962

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Kappa Phi  
Pi Mu Epsilon  
Sigma Xi  
American Society of Mechanical Engineers  
American Institute of Industrial Engineers  
Operations Research Society of Japan

TEACHING LOAD:

Operations Research I  
The Application of the Maximum Principle  
to Industrial Systems

NAME: Stephan A. Konz YEAR BORN: 1933  
RANK: Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. University of Michigan, 1956  
M.S. State University of Iowa, 1960  
M.B.A. University of Michigan, 1956  
Ph.D. University of Illinois, 1964

HONORARY AND PROFESSIONAL SOCIETIES:

American Institute of Industrial Engineers  
Human Factors Society  
American Society for Quality Control  
Society of Manufacturing Engineers  
Institute of Electrical and Electronic Engineers  
Ergonomics Research Society  
Sigma Xi  
American Society of Heating, Refrigerating & Air Con. Engineers  
Alpha Pi Mu  
American Industrial Hygiene Association

TEACHING LOAD: Work Design  
Work Design Lab  
Human Engineering I  
Human Engineering I Lab

NAME: E. Stanley Lee YEAR BORN: 1930  
RANK: Professor of Industrial Engineering  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. Ordnance Engineering College, China 1953  
M.S. North Carolina State University at Raleigh 1957  
Ph.D. Princeton University 1962

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Xi  
Tau Beta Phi  
Phi Kappa Phi  
The Society for Industrial and Applied Mathematics  
The Institute of Electrical and Electronics Engineers  
American Institute of Chemical Engineers  
Alpha Pi Mu  
Operations Research Society of America  
Institute of Environmental Sciences  
American Institute of Industrial Engineers

NAME: Thomas A. Roth YEAR BORN: 1937  
RANK: Assistant Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. University of Wisconsin, 1960  
M.S. University of Wisconsin, 1961  
Ph.D. University of Wisconsin, 1967

HONORARY AND PROFESSIONAL SOCIETIES:

American Society for Metals  
American Association for the Advancement of Science  
Tau Beta Pi  
Sigma Xi  
Professional Engineer-in-Training (Wisconsin)  
The Metallurgical Society of the American Institute of Mining,  
Metallurgical and Petroleum Engineers

TEACHING LOAD:

Engineering Materials  
Production Processes Lab (4 sections)

NAME: Jacob J. Smaltz YEAR BORN: 1917  
RANK: Professor  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. Bradley University, 1939  
M.S. Kansas State University, 1946

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Kappa Phi  
Sigma Tau  
American Institute of Industrial Engineers  
American Society for Engineering Education  
American Society of Safety Engineers  
Association for Computing Machinery  
Registered Professional Engineer (Kansas)  
Alpha Pi Mu  
Certified Safety Professional

TEACHING LOAD:

Computers and Data Processing  
Computers and Data Processing Lab (2 sections)  
Occupational Safety and Health  
Occupational Safety and Health Lab

NAME: Frank A. Tillman YEAR BORN: 1937  
RANK: Professor and Department Head  
DEPARTMENT: Industrial Engineering  
DEGREES: B.S. University of Missouri, June 1960  
M.S. University of Missouri, January 1961  
Ph.D. University of Iowa, August 1965  
Received a \$10,000 Ford Foundation Grant to complete Ph.D.

HONORARY AND PROFESSIONAL SOCIETIES:

Tau Beta Phi  
American Institute of Industrial Engineers  
Institute of Management Science  
Operations Research Society of America  
Professional Engineer  
Sigma Xi  
Alpha Pi Mu

TEACHING LOAD:

Engineering Assembly

NAME: Claude L. Woodard

YEAR BORN: 1922

RANK: Associate Professor

DEPARTMENT: Industrial Engineering

DEGREES: B.S. Kansas State University, 1948  
M.S. Kansas State University, 1949  
M.S. Missouri School of Mines, 1961  
Ph.D. University of Missouri- Rolla, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Delta Kappa  
Sigma Xi  
Alpha Sigma Mu  
Sigma Gamma Epsilon  
American Society of Metals  
Institute of Metals

TEACHING LOAD:

Engineering Materials  
Engineering Materials Lab (2 sections)

NAME: Jason C. Annis YEAR BORN: 1930  
RANK: Assistant Professor  
DEPARTMENT: Mechanical Engineering  
DEGREES: B.S. University of Minnesota, 1953  
M.S. Michigan Technological University, 1956  
Ph.D. Kansas State University, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

Air Pollution Control Association  
American Industrial Hygiene Association  
American Chemical Society  
Sigma Xi  
Pi Mu Epsilon  
Fine Particle Society

TEACHING LOAD:

Environmental Engineering I  
Fine Particle Technology  
Research

NAME: Fredric Carl Appl YEAR BORN: 1932  
TITLE: Professor of Mechanical Engineering  
Harry Jennings Distinguished Professor  
DEGREES: B.S. Carnegie Institute of Technology, 1954  
M.S. Carnegie Institute of Technology, 1956  
Ph.D. Carnegie Institute of Technology, 1958

HONORARY AND PROFESSIONAL SOCIETIES:

Tau Beta Pi  
Phi Kappa Phi  
Pi Mu Epsilon  
Pi Tau Sigma  
Sigma Xi  
American Society of Mechanical Engineers  
Society of Petroleum Engineers

TEACHING LOAD:

M.E. Design Lab  
Machine Design II  
Research



NAME: Naim Z. Azer YEAR BORN: 1927  
RANK: Professor of Mechanical Engineering  
DEPARTMENT: Mechanical Engineering  
DEGREES: B.S. University of Alexandria, Egypt, 1950  
M.S. University of Alexandria, Egypt, 1954  
Ph.D. University of Illinois, 1959

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Kappa Phi  
Sigma Xi  
American Society of Mechanical Engineers  
American Society of Heating, Refrigerating and Air-Conditioning  
Engineers  
American Society for Engineering Education

HONORS: Fulbright Travel Grant, 1955  
Graduate College Fellowship, University of Illinois, 1957-1958  
Distinguished Service Certificate from American Society of  
Mechanical Engineers for serving over 10 years as  
reviewer for Applied Mechanics Reviews

TEACHING LOAD:

Thermo I  
Heat Conduction in Solids  
Research

NAME: Herbert D. Ball YEAR BORN: 1928  
TITLE: Assistant Professor in Mechanical Engineering  
DEGREES: B. S. University of Nebraska, 1952  
M. S. University of Nebraska, 1958  
Ph.D. Kansas State University, 1972

HONORARY AND PROFESSIONAL SOCIETIES:

American Society for Engineering Education  
Pi Tau Sigma

TEACHING LOAD:

Topics in M.E.  
Concepts in Engineering  
Research

NAME: Robert E. Crank YEAR BORN: 1920  
RANK: Professor of Mechanical Engineering  
DEPARTMENT: Mechanical Engineering  
DEGREES: B.S. Kansas State University, 1947  
M.S. Kansas State University, 1950

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Mechanical Engineers  
American Society for Engineering Education  
American Association for the Advancement of Science  
Pi Tau Sigma  
Sigma Tau  
Sigma Xi  
Pi Mu Epsilon  
Phi Kapp Phi  
Regional ASEE Western Electric Fund Award for Excellence  
in Instruction of Engineering Students, 1970

TEACHING LOAD:

Thermo I  
Advisor in Dean's Office

NAME: A. H. Duncan YEAR BORN: 1911  
TITLE: Professor of Mechanical Engineering  
DEGREES: B. S. Kansas State University, 1937  
M. S. Kansas State University, 1949

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Tau  
Phi Kappa Phi  
Pi Tau Sigma  
American Society of Mechanical Engineers  
American Society for Engineering Education

TEACHING LOAD:

Thermo I  
M.E. Lab II  
Undergraduate Advisor

NAME: Arthur O. Flinner YEAR BORN: 1907  
TITLE: Professor of Mechanical Engineering  
DEGREES: B. S. Kansas State University, 1929  
M. S. Kansas State University, 1934  
M. S. Massachusetts Institute of Technology, 1937

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Mechanical Engineers  
American Society for Engineering Education  
Sigma Tau  
Phi Kappa Phi  
Pi Tau Sigma  
Registered Professional Engineer, State of Kansas

TEACHING LOAD:

Thermo I  
Thermo II

NAME: Robert L. Gorton YEAR BORN: 1931  
RANK: Associate Professor of Mechanical Engineering  
DEPARTMENT: Mechanical Engineering  
DEGREES: B.S. Louisiana Polytechnic Institute, 1953  
M.S. Louisiana State University, 1960  
Ph.D. Kansas State University, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Tau Beta Pi  
Pi Tau Sigma  
Registered Professional Engineer  
Sigma Xi  
American Society of Mechanical Engineers  
Technical Committee on Gas Turbine Heat Transfer 1971-  
Kansas City Section Executive Committee 1970-  
American Society for Engineering Education  
American Society of Heating, Refrigeration, and Air-Conditioning Engineers.

TEACHING LOAD:

Engineering Assembly  
Advanced Air Conditioning and Heat Transfer  
Research

NAME: Leland Stanford Hobson

YEAR BORN: 1902

TITLE: Professor of Mechanical Engineering

DEGREES: B. S. Kansas State University, 1927

HONORARY AND PROFESSIONAL SOCIETIES:

Kansas Engineering Society  
Society for Advancement of Management  
National Society of Professional Engineers  
NSPE Educational Foundation  
Kansas State University Research Foundation  
Phi Kappa Phi  
Sigma Tau  
Sigma Xi  
Kansas State Chamber of Commerce  
American Society for Engineering Education  
Registered Professional Engineer, State of Kansas

TEACHING LOAD:

Engineering Economy  
Dean's Office

NAME: John C. Lindholm

YEAR BORN: 1923

RANK: Associate Professor of Mechanical Engineering

DEPARTMENT: Mechanical Engineering

DEGREES: B.S. Kansas State University, 1949  
M.S. University of Kansas, 1956  
Ph.D. Purdue University, 1961

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Mechanical Engineers  
American Society for Engineering Education  
Society for Experimental Stress Analysis  
Sigma Xi  
Tau Beta Pi  
Sigma Tau  
Pi Tau Sigma  
Phi Kappa Phi  
Who's Who Among Students in American Colleges and Universities

TEACHING LOAD:

Machine Design I (two sections)  
Research

NAME: Paul L. Miller, Jr.

YEAR BORN: 1934

RANK: Professor of Mechanical Engineering

DEPARTMENT: Mechanical Engineering

DEGREES: B.S. Kansas State University, 1957  
M.S. Kansas State University, 1961  
Ph.D. Oklahoma State University, 1966

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Tau  
Pi Tau Sigma  
Registered Professional Engineer, Kansas  
American Society for Engineering Education  
Elected Director, Educational Research and Methods  
Division 1970-71, 1971-72  
Appointed Director, Council for Teaching and Learning  
1971-72  
Regional Director of the Effective Teaching Institute  
1971-72  
Elected Program Chairman Elect, Educational Research and  
Methods Division, 1972-73  
Elected Secretary, Council for Teaching and Learning,  
1972-73  
American Society of Heating, Refrigerating, and Air-Conditioning  
Engineers (Appointed to ASHRAE Technical Committee 4.1, 1971-74)  
American Society of Mechanical Engineers

TEACHING LOAD:

Concepts Engineering  
Radiation Heat Transfer  
Asst. Dept. Head  
Research

NAME: Ross Pauli

YEAR BORN: 1918

RANK: Assistant Professor

DEPARTMENT: Mechanical Engineering

DEGREES: B.A. Westmar College, Le Mars, Iowa, 1941  
M.S. Kansas State College, Pittsburg, Kansas, 1947

HONORARY AND PROFESSIONAL SOCIETIES:

Sigma Tau  
Epsilon Pi Tau

TEACHING LOAD:

Graphical Communications I (three sections)

NAME: Frederick H. Rohles, Jr. YEAR BORN: 1920  
TITLE: Professor of Mechanical Engineering and Psychology  
DEGREES: B.S. Roosevelt University, 1942  
M.A. University of Texas, 1950  
Ph.d. University of Texas, 1956

HONORARY AND PROFESSIONAL SOCIETIES:

Animal Behavior Society  
Aerospace Medical Association  
American Association for the Advancement of Science  
American Psychological Association, Fellow  
American Society Heating, Refrigeration, and Air Conditioning  
Engineer  
Psi Chi  
Sigma Xi  
Psychonomic Society  
International Primatological Society

NAME: Clyde Howard Sprague YEAR BORN: 1936  
RANK: Associate Professor of Mechanical Engineering  
DEGREES: B.S. Kansas State University, 1958  
M.A. Kansas State University, 1963  
Ph.D. Purdue University, 1968

HONORARY AND PROFESSIONAL SOCIETIES:

Phi Kappa Phi  
Pi Tau Sigma  
Sigma Tau  
Steel Ring  
Pi Mu Epsilon  
American Society of Mechanical Engineers  
American Society for Engineering Education  
Simulation Councils, Inc.

TEACHING LOAD:

M.E. Lab I  
Automatic Controls  
Research

NAME: Thomas B. Swearingen YEAR BORN: 1931

TITLE: Associate Professor of Mechanical Engineering

DEGREES: B.S. Kansas State University, 1954  
M.S. Washington State University, 1961  
Ph.D. University of Arizona, 1969

HONORARY AND PROFESSIONAL SOCIETIES:

Pi Tau Sigma  
Sigma Xi  
American Society of Mechanical Engineers  
Registered Professional Engineer  
Who's Who in the Midwest

TEACHING LOAD:

Heat Transfer  
Honors Seminar  
Urban Vehicle  
Research

NAME: Joseph Garth Thompson YEAR BORN: 1935

RANK: Associate Professor and Head of the Department, Mechanical Engineering

DEPARTMENT: Mechanical Engineering

DEGREES: B.S. Brigham Young University, 1960  
M.S. Purdue University, 1962  
Ph.D. Purdue University, 1967

HONORARY AND PROFESSIONAL SOCIETIES:

Society of Sigma Xi SCI  
Pi Tau Sigma ASME  
Who's Who in the South and the Southwest  
Engineering Foundation Award (\$1,000.)  
Shell Oil Award for Outstanding Teaching (\$1,000.)  
Ralph R. Teetor Award  
Ford Foundation Fellow  
NSF Fellow  
Shell Oil Company Fellow  
Kansas Engineering Society

TEACHING LOAD:

System Dynamics  
Department Head  
Research

NAME: Wilson Tripp

YEAR BORN: 1907

TITLE: Professor of Mechanical Engineering

DEGREES: B. S. University of California, 1930  
M. S. University of California, 1933  
Ph.D. University of Illinois, 1956

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Mechanical Engineers  
American Society for Engineering Education (past vice-chairman,  
Kansas-Nebraska section)  
Eta Kappa Nu  
Tau Beta Pi  
Pi Tau Sigma  
Sigma Tau  
Phi Kappa Phi (past vice-president, Kansas State chapter)  
Kansas Engineering Society  
Licensed Professional Engineer, State of Kansas  
Pi Mu Epsilon  
Sigma Xi

Teaching Load:

Thermo I  
Impact of Tech. on Society  
Graduate Advisor  
Research

NAME: Ralph O. Turnquist

YEAR BORN: 1928

TITLE: Associate Professor of Mechanical Engineering

DEGREES: B.S. Kansas State University, 1952  
M.S. Kansas State University, 1961  
Ph.D. Case Institute of Technology, 1965

HONORARY AND PROFESSIONAL SOCIETIES:

Instrument Society of America  
Phi Kappa Phi  
Sigma Tau  
Pi Tau Sigma  
Sigma Xi  
ASME

TEACHING LOAD:

M.E. Lab I  
Concepts in Engineering  
Research



NAME: Hugh S. Walker YEAR BORN: 1935

TITLE: Associate Professor of Mechanical Engineering  
Kansas State University  
Manhattan, Kansas 66502 913-532-5610

DEGREES: B. S. Louisiana State University, 1957  
M. S. Louisiana State University, 1960  
Ph.D. Kansas State University, 1965

HONORARY AND PROFESSIONAL SOCIETIES:

Pi Mu Epsilon  
Tau Beta Pi  
Sigma Xi  
Pi Tau Sigma  
American Society of Mechanical Engineers  
Society for Experimental Stress Analysis  
American Society for Engineering Education  
American Institute of Aeronautics and Astronautics,  
Associate Fellow

TEACHING LOAD:

Mechanical Vibs I  
Engineering Analysis I  
Research

NAME: Joe N. Wood YEAR BORN: 1911

TITLE: Professor of Mechanical Engineering

DEGREES: B. S. State University of Iowa, 1936

HONORARY AND PROFESSIONAL SOCIETIES:

American Society of Mechanical Engineers  
Sigma Tau  
American Society for Engineering Education  
Triangle Fraternity  
Licensed Engineer (Kansas)

TEACHING LOAD:

Graphical Communications I (two sections)  
Graphical Communications II

**Name:** Robert W. Clack **Year Born:** 1921  
(5/4/21)  
**Title:** Assistant Professor of Nuclear Engineering and  
Director, Kansas State University TRIGA Reactor Facility  
**Degrees:** B.S., United States Naval Academy, 1943

**Honorary and Professional Societies:**

American Nuclear Society, Health Physics Society, American Society  
for Engineering Education, Registered Professional Engineer (Kansas),  
Licensed Senior Reactor Operator (U. S. Atomic Energy Commission),  
Licensed Aviation Pilot, Diplomate, American Board of Health Physics

**TEACHING LOAD:**

Introduction to Nuclear Engineering  
Reactor Operations Planning

**Name:** Hermann Jakob Anton Donnert **Year Born:** 1929  
**Title:** Professor  
**Degrees:** Ph.D. (Mathematics and Theoretical Physics), Leopold-Franzens  
Universität, Innsbruck, Austria, 1951.

**Honorary and Professional Societies:**

American Association for the Advancement of Science; American  
Physical Society; Nuclear Physics Division, American  
Physical Society; American Nuclear Society; Shielding  
Division, American Nuclear Society; Education Division,  
American Nuclear Society; Nuclear-Explosives Division,  
American Nuclear Society; Mo-Kan Section, American  
Nuclear Society; American Ordnance Association; Maryland  
Academy of Sciences; Scientific Research Society of  
America; American-Men of Science Listing; Sigma Xi;  
Fellow, Washington Academy of Sciences; Member, Kansas  
Academy of Science; Member, American Society for  
Engineering Education.

**TEACHING LOAD:**

Applied Nuclear Engineering Analysis  
Neutron and Particle Interactions  
Research in Nuclear Engineering  
Nuclear Engineering Colloquium

**Name:** N. Dean Eckhoff

**Year Born:** 1938

**Title:** Associate Professor

**Degrees:** A.A., Pratt Junior College, 1958  
B.S., Kansas State University, 1961  
M.S., Kansas State University, 1963  
Ph.D., Kansas State University, 1968

**Honorary and Professional Societies:**

Kansas Academy of Science, American Nuclear Society, Wichita  
Section American Nuclear Society, Sigma Xi, Sigma Tau,  
Steel Ring

**Teaching Load:**

Introduction to Environmental Technology  
Radioisotope Applications Engineering  
Nuclear Fuel Processing  
Research in Nuclear Engineering

**Name:** Richard E. Faw

**Year Born:** 1936

**Title:** Professor and Head, Department of Nuclear Engineering

**Degrees:** B.S., University of Cincinnati, 1959  
Ph.D., University of Minnesota, 1962

**Honorary and Professional Societies:**

American Nuclear Society, IEEE Nuclear Science Group, American  
Society for Engineering Education, Tau Beta Pi, Phi Kappa Phi,  
Sigma Xi.

**Teaching Load:**

Nuclear Engineering Concepts  
Problems in Nuclear Engineering  
Research in Nuclear Engineering

**Name:** Joseph Frederick Merklin **Year Born:** 1935  
**Title:** Associate Professor  
**Degrees:** B.S., Manhattan College, N. Y., 1957  
Ph.D., Physical Chemistry, University of Minnesota, 1963

**Honorary and Professional Societies:**

American Physical Society, Sigma Xi, Faraday Society, American Chemical Society, American Association for the Advancement of Science, Kansas Academy of Science

**Teaching Load:**

Radioisotope Applications Engineering  
Nuclear Fuel Processing Lab  
Radiation Effects on Materials I  
Research in Nuclear Engineering

**Name:** John O. Mingle **Year born:** 1931  
**Title:** Professor of Nuclear Engineering  
Director of Institute for Computational Research in Engineering  
**Degrees:** B.S., Chemical Engineering, Kansas State University, 1953  
M.S., Chemical Engineering, Kansas State University, 1958  
Ph.D., Chemical Engineering, Northwestern University, 1960

**Honorary and Professional Societies:**

American Institute of Chemical Engineers, American Nuclear Society, American Society for Engineering Education, Sigma Tau, Phi Lambda Upsilon, Phi Kappa Phi, Registered Professional Engineer (Kansas), American Association for the Advancement of Science, American Institute of Aeronautics and Astronautics, Sigma Xi (KSU Chapter Lecturer, 1966-67, Chapter President 1969-70), Society for Industrial and Applied Mathematics, Simulation Council.

**Teaching Load:**

Principles of Nuclear Reactor Analysis  
Radiation Shielding II

**Name:** J. Kenneth Shultis **Year born:** 1941  
**Title:** Assistant Professor **Citizenship:** Canadian  
**Degrees:** B.A.Sc. Engineering Physics, University of Toronto, 1964  
M.S. Nuclear Engineering, University of Michigan, 1965  
Ph.D. Nuclear Science, University of Michigan, 1968

**Honorary and Professional Societies:**

Phi Kappa Phi, Sigma Xi, American Physical Society (Nuclear Physics Division, Cosmic Physics Division), American Nuclear Society (Reactor Physics Division, Mathematics and Computation Division)

**Teaching Load:**

Nuclear Engineering Concepts  
Introduction to Nuclear Engineering  
Applied Reactor Theory  
Research in Nuclear Engineering

**NAME:** Fort A. Verser, Jr. **YEAR BORN:** 1924  
**TITLE:** Instructor  
**DEPARTMENT:** Nuclear Engineering  
**DEGREES:** B.S. Chemical Engineering, Texas A. & M. University, 1948  
M.S. Chemical Engineering, Texas A. & M. University, 1950  
M.S. Physics, U.S. Naval Postgraduate School, 1960

**HONORARY AND PROFESSIONAL SOCIETIES:**

American Nuclear Society, Sigma Xi, Professional Society for Nuclear Defense

## Constitution of Tau Beta Gamma

### Preamble:

The members of the School of Engineering at the Kansas State University, desiring to be incorporated in Tau Beta Pi, form Tau Beta Gamma for the purpose of recognizing in a fitting manner those who have distinguished themselves as students or by their eminent attainments as graduates in the field of engineering, of promoting scholastic incentive and cultural development of engineering students at Kansas State University.

### Article I: Name

The organization shall be titled Tau Beta Gamma, the undergraduate Engineering Honor Society of the College of Engineering, Kansas State University, Manhattan, Kansas.

### Article II: Pattern

This engineering honor society shall be patterned after the national engineering honor society, Tau Beta Pi Association, Inc. in every way and as explicitly set forth in the Constitution of Tau Beta Gamma Honor Society.

### Article III: Purpose

The purpose of this organization shall be:

- 1) To give recognition to outstanding engineering students who have attained honor rating in their college courses.
- 2) To foster high scholarship among lower classmen by establishing an incentive for them to achieve honors necessary for admission to the society.
- 3) To keep close contact with alumni, with the hope of furthering the aims of the society and the school.
- 4) To become affiliated eventually with the national honorary engineering fraternity, Tau Beta Pi.
- 5) To promote the profession of engineering in the college and community.
- 6) To engage in activities for the betterment of the community.

### Article IV: Membership

Section 1: The membership of this organization shall consist of regularly enrolled undergraduates, at the Kansas State University at Manhattan, Kansas, are engineering students, meeting the prescribed qualifications.

#### Section 2: Eligibility Requirements

- a. Students scholastically in the upper eighth of the class in the junior year would be eligible for election in both the fall term and spring term.

- b. Those senior students whose scholastic average fall within the upper fifth of the senior class would be eligible for election at the beginning of the fall or spring term of their senior year.
- c. Transfer students must have completed 25 hours of work at Kansas State in order to be eligible for membership.

Section 3: Election of members.

There will be two elections and initiations of undergraduates each year. It shall be held as soon as practicable after the data determining the scholastic ability of the candidates have been made.

Section 4: Members should be prepared to spend at a minimum of four hours per month in the service of Tau Beta Gamma.

Section 5:

A member in good standing is one who is not under censure by this organization and has paid his dues.

Section 6 (a): For continued and unexcused absences from regularly called meetings of this Society, negligence of assigned duties, inexcusable failure to meet any financial obligations, conviction or violation of the University Honor Code, or for other just cause, the active members or Advisory Council may make recommendations to the Executive Council to institute expulsion proceedings.

Section 6 (b): Expulsion shall be by a three-fourth's majority on a secret ballot of active members.

Section 7: Expulsion consists of the following: (1) Return of badge and certification of membership. (2) Complete severance of all connection with the Society.

Section 8: A member may appeal his case to the Advisory Board or Executive Council in light of new evidence.

Section 9:

A member not in good standing shall forfeit all rights and privileges of his membership until such time as he is reinstated.

Section 10:

Membership in other societies, fraternities, or organizations shall not disbar a candidate from election into this society.

Section 11:

All former members of this society who have completed their undergraduate studies shall be termed alumni members.

Article V: Government

Section 1:

The officers of this organization shall be President, Vice President, Recording Secretary, Corresponding Secretary, Treasurer, Cataloger, and Advisory Council. These officers shall be elected by a majority vote.

Section 2:

Any active member in good standing would be eligible for office.



Section 3:

To be eligible for President, one must be a member of the society for at least one semester.

Section 4:

There shall be an election of the officers during the first meeting in May of each year. The offices will be held until the next election.

Section 5:

In case a vacancy occurs in the office of president, the vice president shall automatically become president, and a new vice president shall be appointed by the advisory council. Other vacancies shall be filled by appointment by the Advisory Council. All such appointments shall be subject to approval of the undergraduate membership by a majority vote.

Section 6:

Any officer may be removed by a three quarter vote of the active chapter.

Section 7:

The Advisory Council shall consist of the president, vice president, corresponding secretary, two alumni members, and a faculty advisor. The alumni members shall serve for terms of one year.

Section 8:

The Executive Council is a group at the national level of Tau Beta Pi, which assumes the leadership of the honorary.

Article VI: Meetings.

Section 1:

Regular meetings of this organization shall be held once a month during the school year and shall be called by the president. Special meetings may be called by the advisory council or president.

Section 2:

General meetings of a social or technical character shall be held each term as warranted.

Article VII: Advisor.

There shall be a faculty advisor, who shall be a member ex-officio without a vote. He shall be a member of the Tau Beta Pi association.

Article VIII: Finances.

Section 1:

All members of the Society may be assessed fees as required for the proper functioning of this organization provided such an assessment is authorized by the council and passed by a majority vote of the members of this organization.

Section 2: Funds are to be entrusted to the treasurer for safe keeping, subject to the semi-annual audit by the advisory council.

Section 3:

A checking account shall be established in the name of Tau Beta Gamma, with the president or treasurer signing.



Article IX: Amendments.

Section 1:

Amendments and Bylaws to this constitution may be submitted by any active member in good standing at any regular meeting. Notices of proposed amendments shall be sent to all members prior to the next regular meeting when the amendments shall be voted on.

Section 2:

An amendment shall be passed by a 3/4 vote of the quorum, relating to voting on amendments, as defined in the bylaws.

Article X: Initiation.

Section 1: Initiation of new members shall be held as early as possible in the fall and spring semesters.

Section 2: The initiation procedure shall be as prescribed in the Bylaws of this constitution.

## BY-LAWS OF TAU BETA GAMMA

### By-Law I: Quorum

Section 1. A majority of the members of the council shall constitute a quorum at meetings of the council.

Section 2. A majority of student members shall constitute a quorum at regular meetings.

Section 3. A quorum must be present at any meeting at which a vote is taken committing the organization to any proposal. Without a quorum, meetings may be held at which members are inducted, proposals are submitted to the Society, matters of interest to the organization are discussed, or programs are formulated, but there shall be no formal voting on such matters.

Section 4. The quorum for purposes of constitutional amendments, election of membership, elections, changing of initiation fees or chapter dues, passing assessments of student members, and disciplinary action shall consist of three quarters of the membership.

### By-Law II: Order of Business

The order of business at all meetings shall be as follows:

1. Roll call
2. Reading of minutes
3. Reports of officers, committees, etc.
4. Unfinished business
5. New business
6. Adjournment

### By-Law III: Procedure

Section 1. All undergraduate members shall have equal voting power. The alumni members shall have no vote.

Section 2. If questions concerning parliamentary procedure arise Roberts "Rules of Order Revised" shall govern in all points not specifically covered in the constitution and by-laws of this organization.

### By-Law IV: Duties of Officers

Section 1. It shall be the duty of the president to act as a responsible agent and leader of this chapter. He shall preside at all meetings, appoint all committees (subject to approval by a majority vote of the active body). He shall cast the deciding vote in case of a tie in all things except elections.

Section 2. The vice president shall act in the capacity of any officer who is not present at the meeting. He shall act as parliamentarian at all meetings. He shall be a member of all committees.

Section 3. It shall be the duty of the Recording Secretary to keep the minutes of the regular meetings completely typewritten, up to date, and in a suitable folder.

Section 4. It shall be the duty of the Corresponding Secretary to carry on such correspondence of the Society as the President or any other officer may direct.

Section 5. The Treasurer shall be in charge of all funds and bills of this Society. He shall maintain a bank account in the name of the Society.

Section 6. It shall be the duty of the Cataloger to keep an up-to-date record of all active and alumnus members, including full name, home address, and the college address.

Section 7. The advisory council shall formulate any necessary policies, such as the preparation of a budget, for presentation to the membership of this Society.

Section 8. The Advisory Council shall act as an advisory and judicial committee to determine the advisability of any action taken or proposed by the Society, brought before it by the petition of a minority of the Society, referred to it by a vote of the same, or considered on its own initiative. All changes in the Bylaws must be submitted to, and approved by, the Advisory Council before going into effect. By a majority vote, the Advisory Council may forbid any such action or change, subject to an appeal to the Executive Council.

By-Law V: Committees

Section 1 (a) The Society shall have standing committees on membership-initiation, activities, and such other committees as the President shall desire to establish.

Section 1 (b) The President shall provide written lists of specific duties and responsibilities to the committee chairmen.

Section 2 (a) The committee chairmen shall be appointed by the President and subject to the approval of the chapter.

Section 2 (b) The committee members shall then be appointed by the chairmen and the President.

By-Law VI. The initiation will be set up by the membership committee.